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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,513	06/29/2000	Alexander C. Loui	75.063	8499

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EXAMINER	
WILSON, JACQUELINE B	

ART UNIT	PAPER NUMBER
2612	4

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/606,513	LOUI, ALEXANDER C.	
	Examiner	Art Unit	
	Jacqueline Wilson	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soeda et al. (U.S. 5,382,974), Udagawa (US 6,519,000) in view of Astle (U.S. 5,486,611).

Regarding Claim 1, Soeda et al. '974 teaches a camera adapted to capture both motion and still images of superior quality (col. 2, lines 30-35). Soeda et al.'974 does not specifically disclose higher resolution still images have at least four times the resolution of the motion images. However, Udagawa teaches a digital camera capable of taking both moving picture and high-resolution still picture (col. 5, lines 49+). Udagawa teaches that when a pulse is applied to the transfer gate, one stage of transfer is performed thereby transferring charges to the horizontal transfer block (col. 8, lines 10+). While maintaining charges in the horizontal transfer block, another pulse is applied to the vertical transfer gate, such that another stage of transfer is performed. These charges are transferred to the horizontal transfer gate and added together. This

teaches that the resolution of the of the motion image is four times less than the still image since charges are reduced during the vertical and horizontal transfer steps. Although Soeda et al. '974 fails to disclose compressing the motion images, it is notoriously well known in the art to compress motion images before storing them for providing more space for storage (Official Notice). Soeda et al. '974 further teaches storing the motion as well as still images in the camera (col. 7, lines 23-28; see also fig. 2), and periodically during the capture of the motion image, capturing the higher resolution still image of the scene (see abstract). Although Soeda et al. '974 fails to disclose a digital camera, it is notoriously well known in the art to use a digital camera to capture still and moving images (as previously taught by Udagawa). Soeda et al. '974 fails to specifically disclose creating and storing a link in the camera between the still image and a corresponding frame in the motion image at the time that the still image is captured. Astle '611 teaches a method creating a video database index for indexing a plurality of video frames wherein each video frame has a unique location within the video database (col. 2, lines 58-63). The video processing system (100) performs a prescan of the video database, extracts representative frames, and selects or generates certain video frames to be stored as index frames in a mass storage (col. 3, lines 40-60). This creates a link between the still image and the motion image so that the user can easily and quickly search the index to find the desired event (col. 3, lines 60-64; see also the monitor in fig. 4). It would have been obvious to include this processing method in the camera system of Soeda et al. '974 so that the user may easily and quickly search the images to find a desired event. This would allow fast retrieval of

motion images. Therefore, it would have been obvious to one having ordinary skill in the art to modify Soeda et al. '974 with the teaching of Astle '611 to create a link between the moving and still images for the purpose of identifying the images stored.

Regarding Claim 2, Soeda et al. '974 teaches a microphone (18) is used along with the recording of images. Although Soeda et al. '974 fails to specifically disclose storing the compressed audio along with the motion image, this is notoriously well known in the art. As stated above, the compression of audio and motion images is provided to reduce space in the memory means and allows more motion and audio signals to be stored. (Official Notice)

Claim 3 is analyzed and discussed with respect to Claim 1, with the further limitation of storing a pointer in a header of the still image which is create the link between the still image and the motion image. Astle '611 teaches the index frames are displayed on the monitor (see fig. 4) is which the user may chose which image to view for motion. This teaches that a pointer is stored in a header of the still image to accurately locate each frame as shown in fig. 3 (305_a, 306_a, 307_a). This is advantageous for easy and quick retrieval of an image as desired by the user. Therefore, it would have been obvious to one having ordinary skill in the art to have a link between the still image and corresponding frame in the compressed motion image being a pointer which is stored in a header of the still image.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soeda et al. (U.S. 5,382,974), Udagawa (US 6,519,000), Astle (U.S. 5,486,611) and in further view of Kawai et al. (U.S. 5,157,511).

Regarding Claim 4, neither Soeda et al. '974, Udagawa nor Astle '611 teaches generating low resolution index images from the higher resolution still images with pointer linking the index images to the high resolution still image and storing the index images wither associated pointers. However, Kawai et al. '511 teaches a plurality of index images (fig 4, SUB1-SUB6) which are generated from high resolution images are displayed on the display. The user selects which image to view from the index images, and the larger size image appears on the main screen (col. 5, lines 60+). By combining the teaching of Kawai et al. '511 with the teachings as stated in Claim 1, it would have been obvious to associate the high resolution and the index images with the motion images since the motion image is where the still images originated, and the index images locates a specific scene for viewing the motion, as taught by Astle '611. Astle '611 also discloses that a host computer (116) decodes the encoded index frames so that the user may view the images. Since Astle '611 further teaches that the motion images may be compressed, it would have been obvious to also decompress the compressed motion image from the storage for viewing the scene on a monitor. Therefore, it would have been obvious to one having ordinary skill in the art to generate low resolution index images from the higher resolution still images with pointer linking the index images to the high resolution still image and storing the index images with associated pointers for displaying the motion images.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soeda et al. (U.S. 5,382,974), Udagawa (US 6,519,000), and Astle (U.S. 5,486,611).

Claim 5 is analyzed and discussed with respect to Claims 1 and 4, with the further limitations of the specific elements of a digital camera and an object oriented image processing system. However, a solid state image sensor (30), microphone (18), and means for periodically capturing a high resolution (25) as taught by Soeda et al are notoriously well known in the art for processing captured images. As for the object oriented image processing system (100), Astle '611 teaches a host processor (116) that stores digital images that were stored in the mass storage (col. 4, lines 50- col. 5, lines 1+), a graphic user interface including a display (fig. 4) and an operator input device (keyboard or mouse, col. 15, 40-55). The host processor includes a means for decoding the encoded images. An A/D converter is inherently taught in Astle '611 since the mass storage maintains digital images (col. 5, lines 49+). Since Astle '611 teaches that the motion images may be compressed, it is obvious that the host processor would decode the compressed video bit stream. As for the limitation of an object oriented operating system, it is notoriously well known in the art to have an host processor to include programs such as Windows 95™, Windows NT™, etc. for use by the user. (Official Notice). Nearly every computer system has these types of applications in order to easily operate the computer system. Therefore it would have been obvious to one having ordinary skill in the art an object oriented image processing system with specific elements of a digital camera for processing a captured image.

5. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soeda et al. (U.S. 5,382,974), Udagawa (US 6,519,000), Astle (U.S. 5,486,611) and in further view of Fukuoka (5,754,227).

Regarding Claim 6, neither Soeda et al. '974, Udagawa nor Astle '611 specifically discloses compressing the motion image using the MPEG format or storing the still image in the FlashPix™ format. However, MPEG is well known in the art (also taught in Fukuoka '227) as a method of compressing images for storage to provide more space in the storage unit. FlashPix™ is also well known in the art for storing multi resolution images. Companies such as Eastman Kodak Company and Hewlett-Packard Company, to name a few, develops FlashPix to store images that require different resolution. Therefore it would have been obvious to one having ordinary skill in the art to use MPEG compression and FlashPix™ format for the purpose of maintaining images capable of being compatible with different devices using well known formats.

Regarding Claims 7 and 8, it is notoriously well known in the art for MPEG compressed motion images includes I, P, and B frames for creating bitstreams starting with an I frame and at the beginning of new MPEG bitstreams, and would have been obvious to create the pointer to an I frame since the I frame is the frame with the most information without requiring other frames to identify the image, such as the still image. (Official Notice) Therefore, it would have been obvious to generate a pointer to an I frame of an MPEG bitstream for the purpose of obtaining information regarding the stream of data and processing the information accordingly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Wilson whose telephone number is (703) 308-5080. The examiner can normally be reached on 8:30am-5:00pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JBW
06/23/04

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